CREATING MIND MAPS USING MIRO

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WHAT IS MIND MAPPING?

- Mind mapping is a highly effective way of getting information in and out of your brain.
- Mind mapping is a creative and logical means of note-taking and note-making that literally "maps out" your ideas.
- They have a natural organizational structure that radiates from the centre and use lines, symbols, words, colour and images according to simple, brain-friendly concepts.
- Mind mapping converts a long list of monotonous information into a colourful, memorable and highly organized diagram that works in line with your brain's natural way of doing things.

- Mind mapping is a slightly different but complementary technique that is concerned with the organisation of ideas and concepts.

- Mind mapping (or “idea” mapping) has been defined as ‘visual, *non-linear* representations of ideas and their relationships’ (Biktimirov and Nilson 2006).

- Mind maps comprise a network of connected and related concepts. Any idea can be connected to any other.

- Free-form, spontaneous thinking is required when creating a mind map, and the aim of mind mapping is to find creative associations between ideas.

WHAT IS A MIND MAP?

A Mind Map is a visual thinking tool, ideal for brainstorming, exploring ideas and presenting information in a uniquely visual way.
A Mind Map is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject using a non-linear graphical layout that allows the user to build an intuitive framework around a central concept.

AIM OF MIND MAPPING

- The over-riding aim of all mapping techniques is similar.

- If students can represent or manipulate a complex set of relationships in a diagram, they are more likely to understand those relationships, remember them, and be able to analyse their component parts.

- This, in turn, promotes “deep” and not “surface” approaches to learning (Biggs 1987; Entwistle 1981; Marton and Saljo 1976 and Ramsden 1992).

BENEFITS OF MIND MAPPING

Mind mapping basically avoids dull, linear thinking, jogging your creativity and making note taking fun again.

A Mind Map is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject using a non- linear graphical layout that allows the user to build an intuitive framework around a central concept.

USE OF MIND MAPPING

- The main use of mind mapping is to create an association of ideas.
- However, another use is for memory retention—even if the advantages in the case of mind mapping might be marginal (Farrand et al. 2002).
- It is generally easier to remember a diagram than to remember a description.
- There is empirical support for the use of mapping in enhancing, retaining and improving knowledge.
- Evidence from the cognitive sciences shows that visual displays do enhance learning (Vekiri 2002; Winn 1991).

CAN USE MIND MAP FOR……

- Brainstorming (individually or in groups)
- Problem solving
- Planning a particular topic
- Researching and Jot down information from multiple sources from pieces in to whole
- Presenting information from a single Platform
- Gaining insight on complex subjects
- Jogging your creativity
- Note Taking
- Studying and Memorization

THE FIVE ESSENTIAL CHARACTERISTICS OF MIND MAPPING

- The main idea, subject or focus is crystallized in a central image.
- The main themes *radiate* from the central image as 'branches'.
- The branches comprise a key image or key word drawn or printed on its associated line.
- Topics of lesser importance are represented as 'twigs' of the relevant branch.
- The branches form a connected nodal structure.

The Power of Images

- There is a well-known quote, "A picture is worth a thousand words".
- We associate and remember images because they make use of a massive range of your cortical skills, especially imagination.
- Images can be more evocative than words, more precise and potent in triggering a wide range of associations, thereby enhancing creative thinking and memory.

Tony Buzan and Mind Mapping

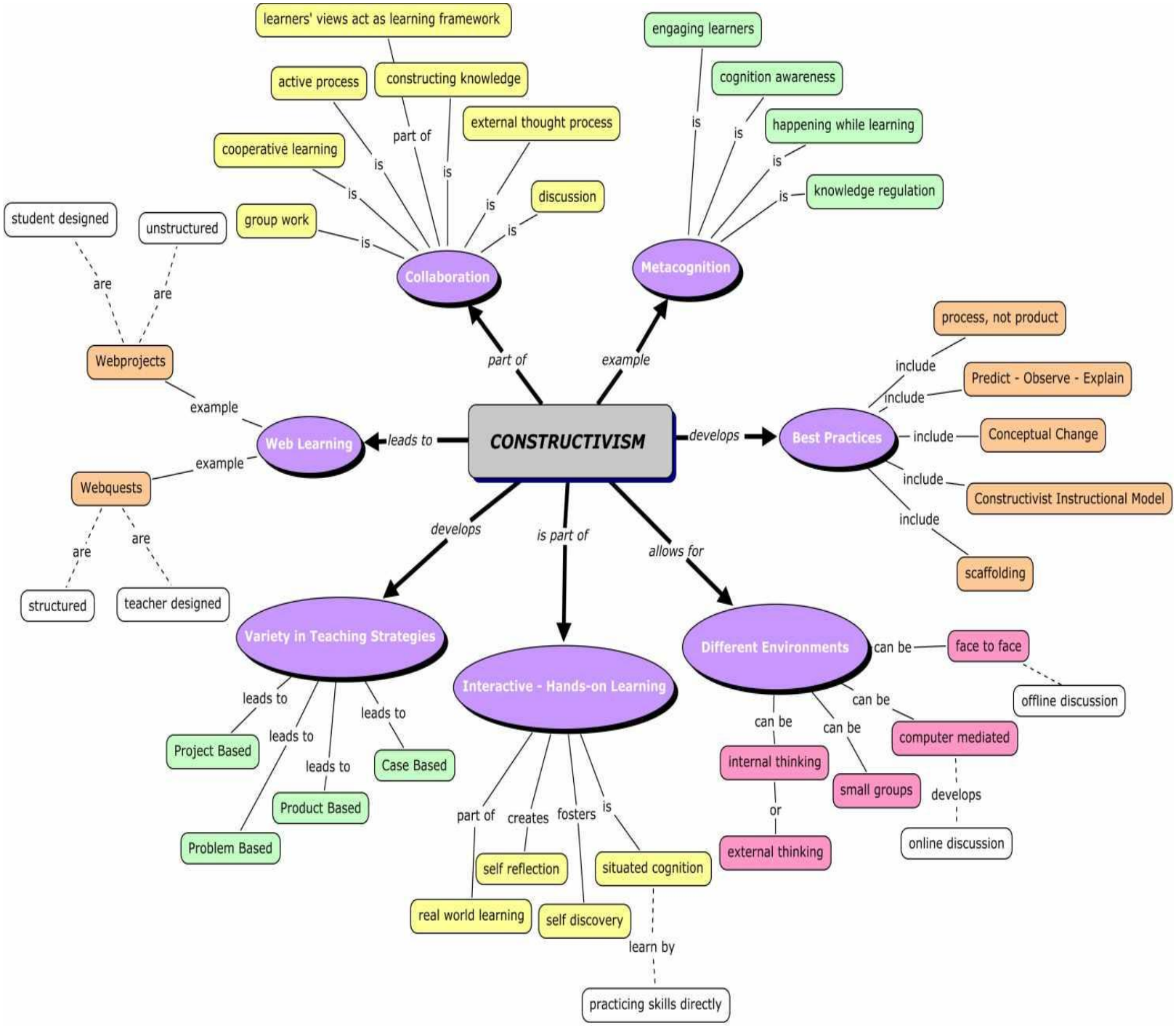
- Although people have been creating maps using an image-centered radial graphic organization technique for centuries, British psychology author Tony Buzan has made a claim to the origin of the Mind Map.
- He argues that 'traditional' outlines require that the reader scans the information from left to right and top to bottom, whilst the brain's natural preference is to scan the entire page in a non-linear fashion.
- Buzan also uses widespread assumptions about the cerebral hemispheres in order to promote the exclusive use of mind mapping over other forms of note making.

Types of Mind Maps

- Mind maps are mainly used in the early stage of a project or program to analysis the subject or solve problems. According to different purposes, mind maps can be classified into 3 types:
- Library mind maps for information organizing
- Presentation mind maps for presenting ideas and projects
- Tunnel timeline mind maps for organizing or making a project plan

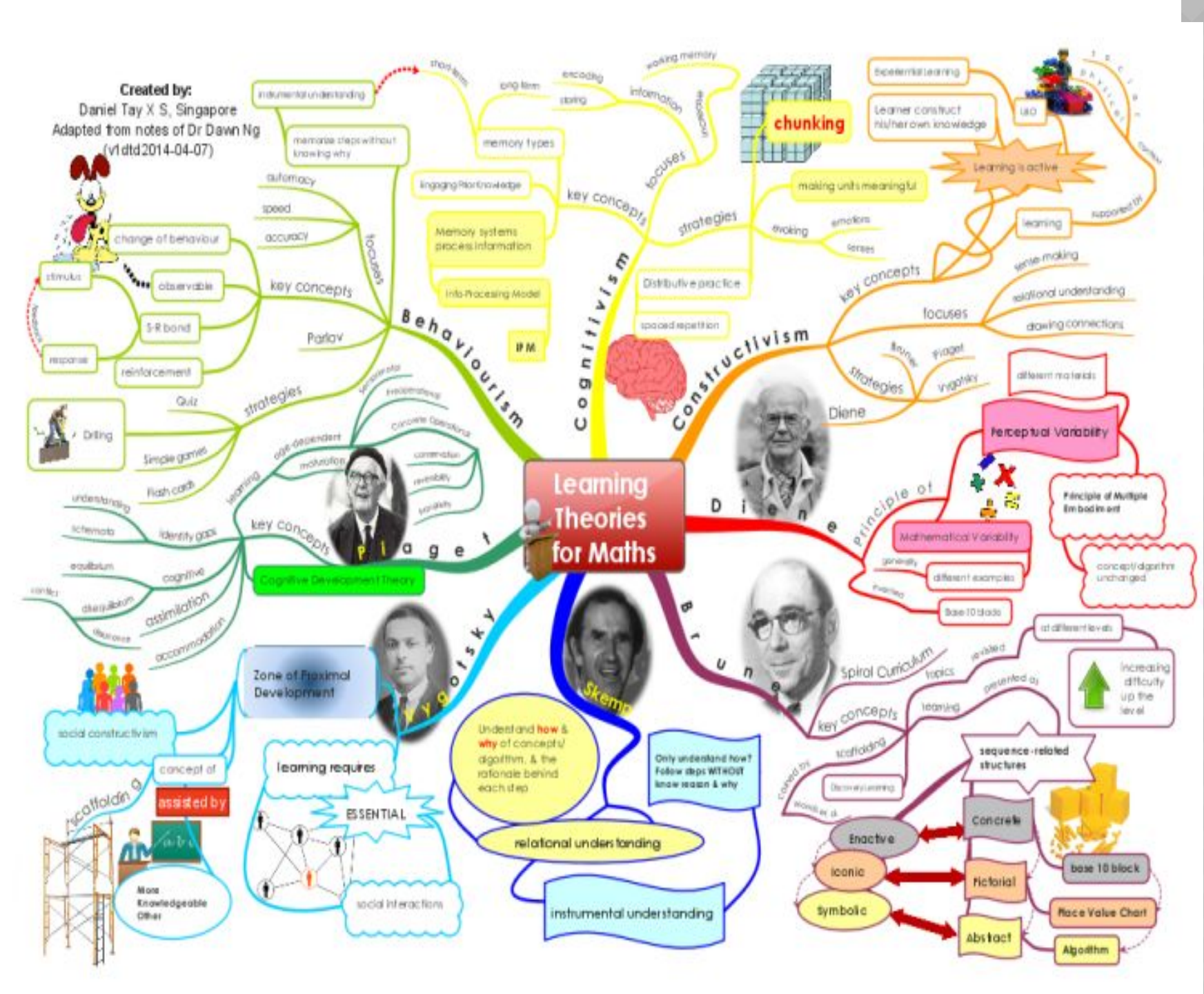
Mind Map Type 1: Library Mind Maps

- Library mind maps can also be called reference maps.
- This type of mind maps are mainly used to organize information, so that you can have a clear and visual understanding of the subject without missing anything out.
- The purpose of library mind maps is to sort and organize the collected information for a better understanding of the subject.
- When creating a library mind map, first step is to put all the information together and organize it in a map tree. The map will show how eachinformation linked to each other and how they can serve the main idea.


CONSTRUCTIVISM
Collaboration
Metacognition
Web Learning
Best Practices
Variety in Teaching Strategies
Interactive - Hands-on Learning
Different Environments
part of
example
leads to
develops
is part of
allows for
learners' views act as learning framework
active process
constructing knowledge
external thought process
cooperative learning
discussion
group work
student designed
unstructured
engaging learners
cognition awareness
happening while learning
knowledge regulation
Webprojects
Webquests
are
example
structured
teacher designed
process, not product
Predict - Observe - Explain
Conceptual Change
Constructivist Instructional Model
scaffolding
include
Project Based
Product Based
Case Based
Problem Based
leads to
part of
creates
fosters
is
self reflection
real world learning
self discovery
situated cognition
learn by
practicing skills directly
face to face
offline discussion
computer mediated
online discussion
small groups
internal thinking
external thinking
can be
or
develops

Mind Map Type 2: Presentation Mind Maps

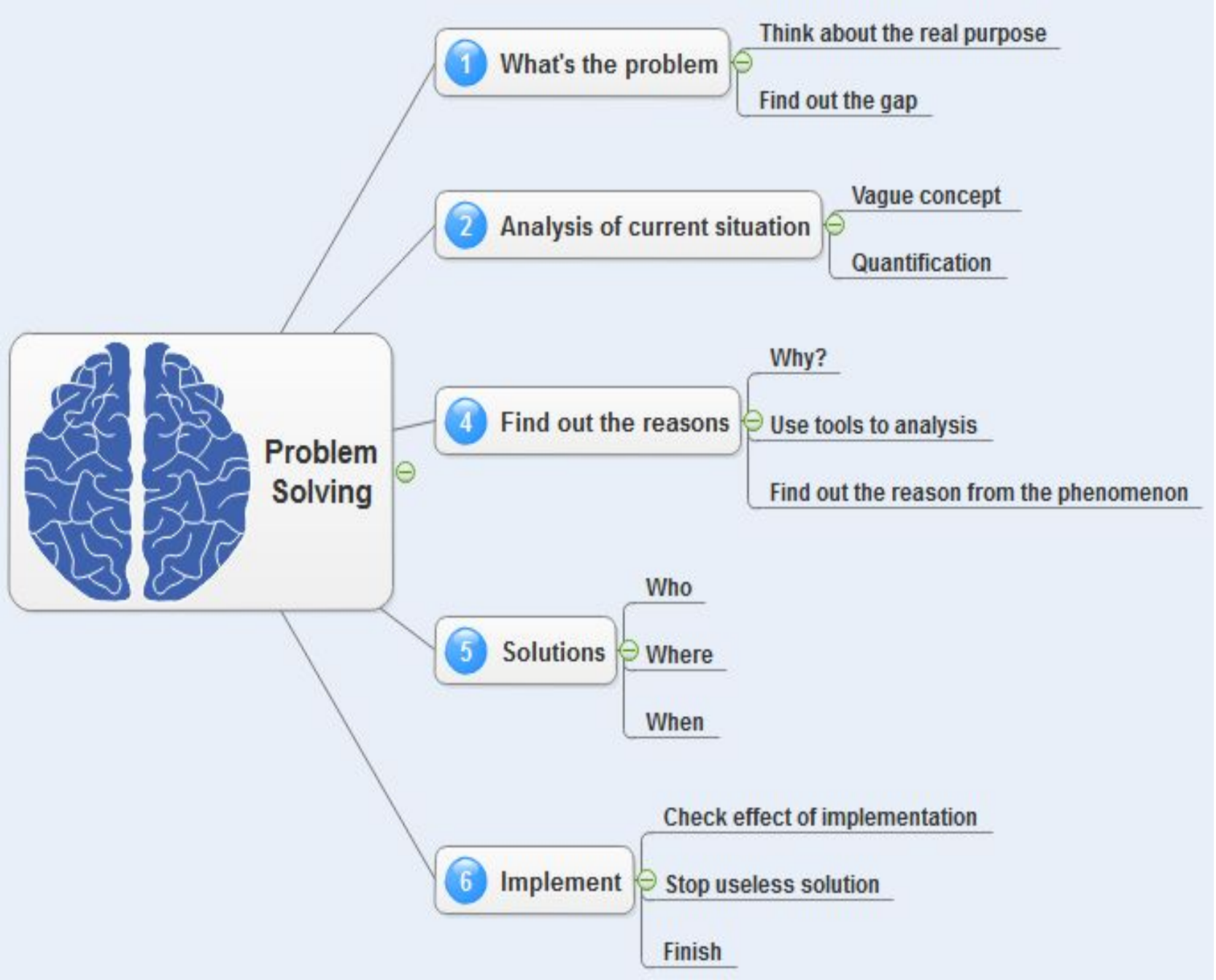
- This type of mind map is used to present the process of an idea to the audience.
- Presentation mind maps illustrate the way that the project goes in order to track the steps.
- Therefore the focus of a presentation mind map is the audience instead of the topic.
- How the information should be positioned in the map depends on whether the audience can understand it or not.
- If the audience can follow with the way you are presenting, then the map is well structured. Thus, you presentation can be well accepted by the audience.
- This type of mind map can be used for explaining an activity or a training session.



Created by:
Daniel Tay X S, Singapore
Adapted from notes of Dr Dawn Ng
(v1dtd2014-04-07)
Learning Theories for Maths
Behaviourism
Cognitivism
Constructivism
Piaget
Diene
Bruner
Vygotsky
Skemp
key concepts
focuses
strategies
memory types
chunking
Learning is active
Learner construct his/her own knowledge
Experiential Learning
Memory systems process information
Info-Processing Model
IPM
Distributive practice
spaced repetition
making units meaningful
change of behaviour
observable
S-R bond
reinforcement
stimulus
response
Parlov
Quiz
Drilling
Simple games
Flash cards
Cognitive Development Theory
identity gaps
assimilation
accommodation
Zone of Proximal Development
social constructivism
concept of
assisted by
More Knowledgeable Other
learning requires
ESSENTIAL
social interactions
Understand how & why of concepts/ algorithm, & the rationale behind each step
Only understand how? Follow steps WITHOUT know reason & why
relational understanding
instrumental understanding
Perceptual Variability
Principle of Multiple Embodiment
Mathematical Variability
different examples
Base 10 blocks
concept/algorithm unchanged
different materials
Spiral Curriculum
Increasing difficulty up the level
sequence-related structures
Enactive
Iconic
Symbolic
Concrete
Pictorial
Abstract
base 10 block
Place Value Chart
Algorithm

Mind Map Type 3: Tunnel Timeline Mind Maps

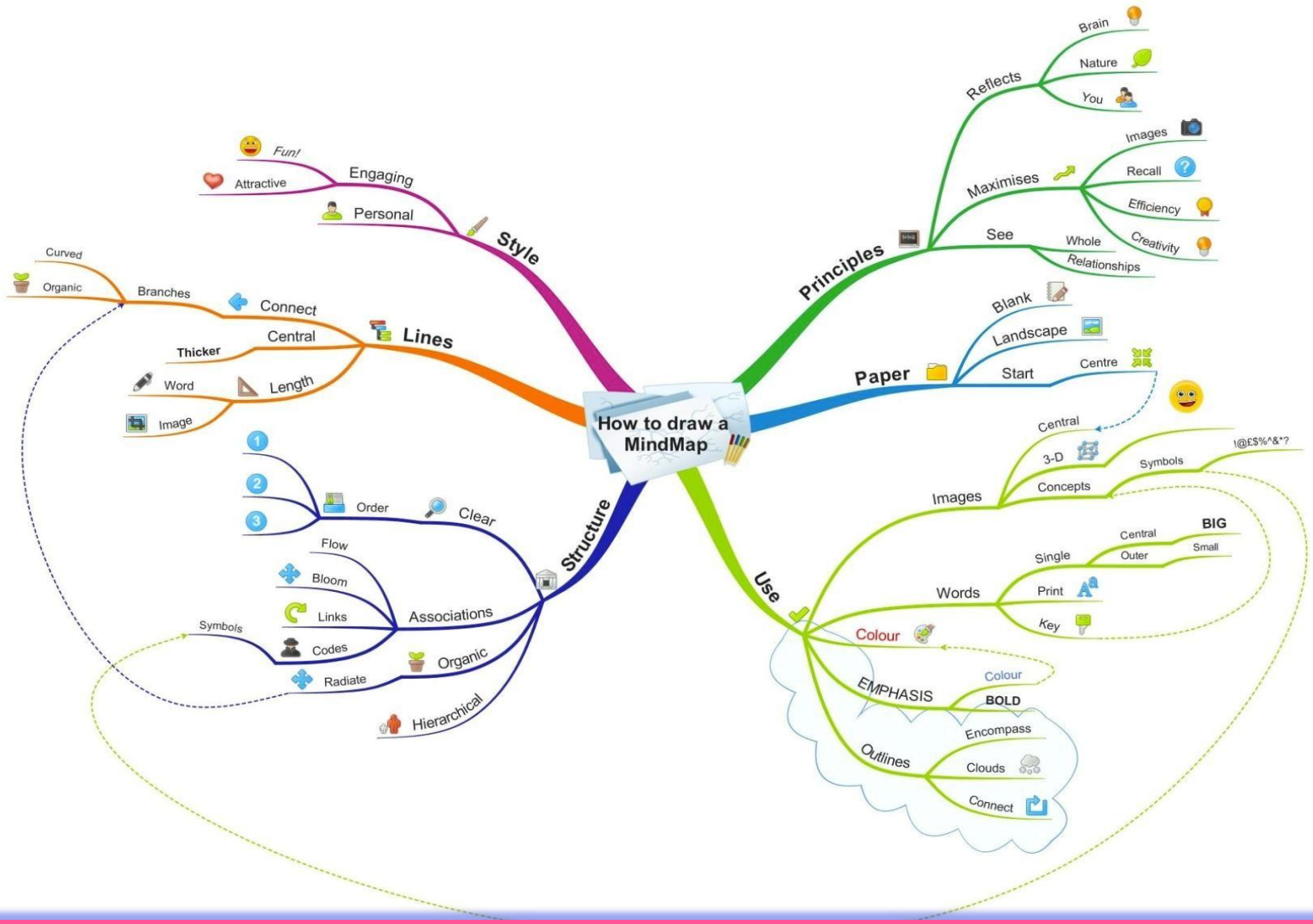
- This type of mind maps are also simplified as planning mind maps, they are mainly used for project strategy, program plan, or problem solving.
- Tunnel timeline mind maps are designed to achieve a goal.
- The purpose of this type of mind maps is to visualize success.
- The center (main topic) of the mind map is the outcome that you pursuit, and each sub-topic represents a path to achieve that outcome.

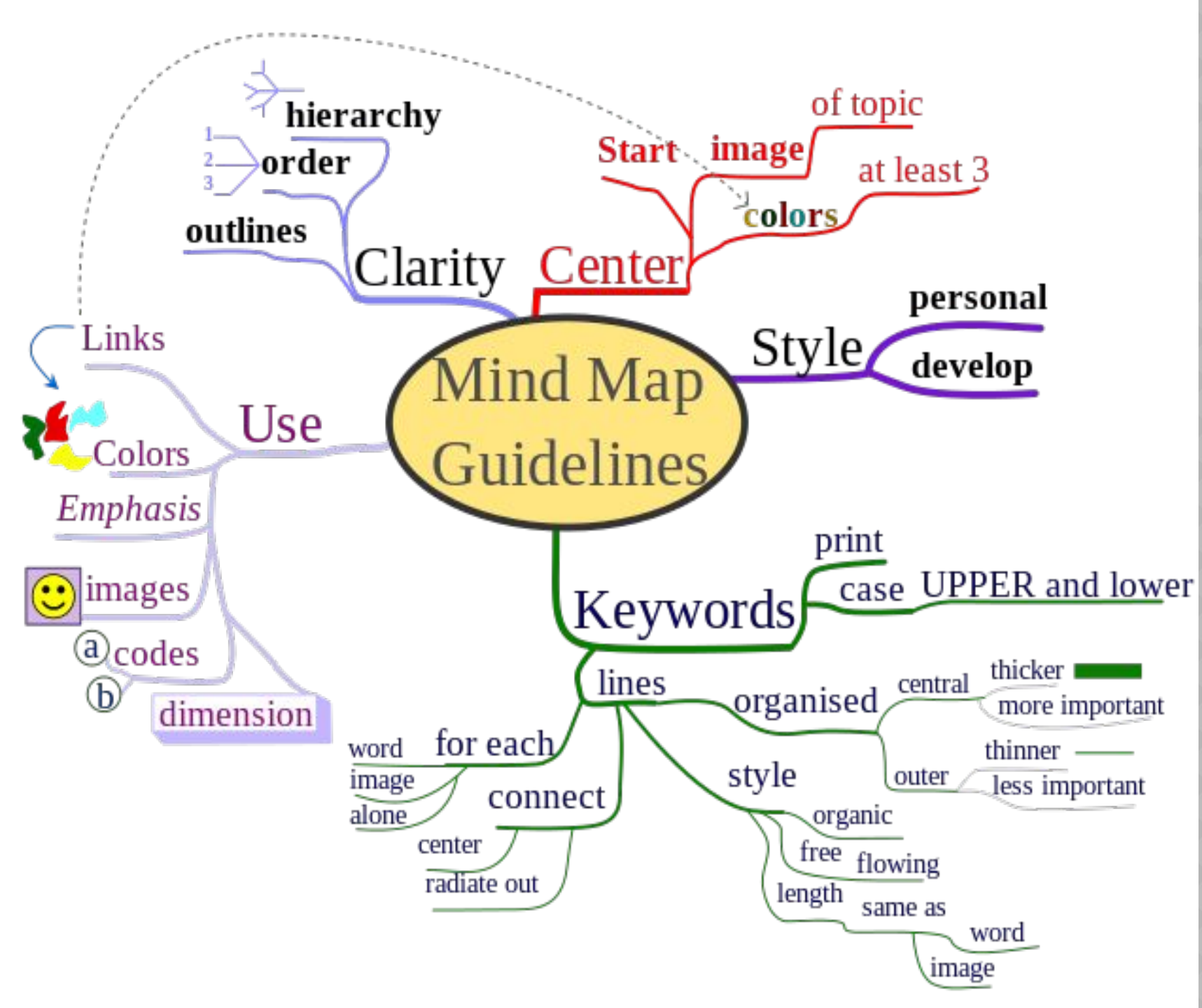

Problem Solving
1 What's the problem
Think about the real purpose
Find out the gap
2 Analysis of current situation
Vague concept
Quantification
4 Find out the reasons
Why?
Use tools to analysis
Find out the reason from the phenomenon
5 Solutions
Who
Where
When
6 Implement
Check effect of implementation
Stop useless solution
Finish

HOW TO MAKE A MIND MAP

- Think of your general main theme and write that down in the centre of the page. i.e. Food
- Figure out sub-themes of your main concept and draw branches to them from the centre, beginning to look like a spider web.
- Make sure to use very short phrases or even single words.
- Add images to invoke thought or get the message across better.
- Try to think of at least two main points for each sub-theme you created and create branches out to those.

SAMPLE OF MIND MAP




Mind Map Guidelines
Clarity
hierarchy
order
outlines
Center
Start
image
of topic
at least 3
colors
Style
personal
develop
Use
Links
Colors
Emphasis
images
codes
dimension
Keywords
print
case
UPPER and lower
lines
organised
central
thicker
more important
outer
thinner
less important
for each
word
image
alone
connect
center
radiate out
style
organic
free flowing
length
same as
word
image

TOOLS OF CREATING MIND MAP

MindMeister
Imind Map
Coogle
X-Mind
Free Mind
Miro
Popplet
Text2
Mind Note
Mindo
Big Mind
Mind Genius

Mind manager
Free plane
The Brain
Scapple
Mapul
CoMapping
Mind App
Mind Map
Mind 43
Mindomo
Storm Board
Iblue Sky

MIRO

- Miro is a digital “whiteboard” platform that can make it easy to brainstorm and collaborate with members of your team or innovation program.
- The software allows you to create notes and designs, move things around, and communicate through embedded video calls or online chats. The tool also comes with a series of pre-built templates that can inspire or serve as a starting place for your own project work

- ***Miro has been widely used by million users for creating mind maps for concept building.***

SOME COMMON USES OF MIRO INCLUDE:

- Creating a list of ideas or topics to focus on for an important project
- Developing a user story or customer journey map
- Wireframing a new product concept or idea
- Laying out a roadmap or strategy for an innovation workshop or program
- Running a more engaging or innovative meeting for your team in an agile culture
- Miro can connect to some other common virtual worksing tools, such as Google Drive, Slack, Asana, Trello, and SurveyMonkey.

WHAT IS MIRO CONCLUSION?

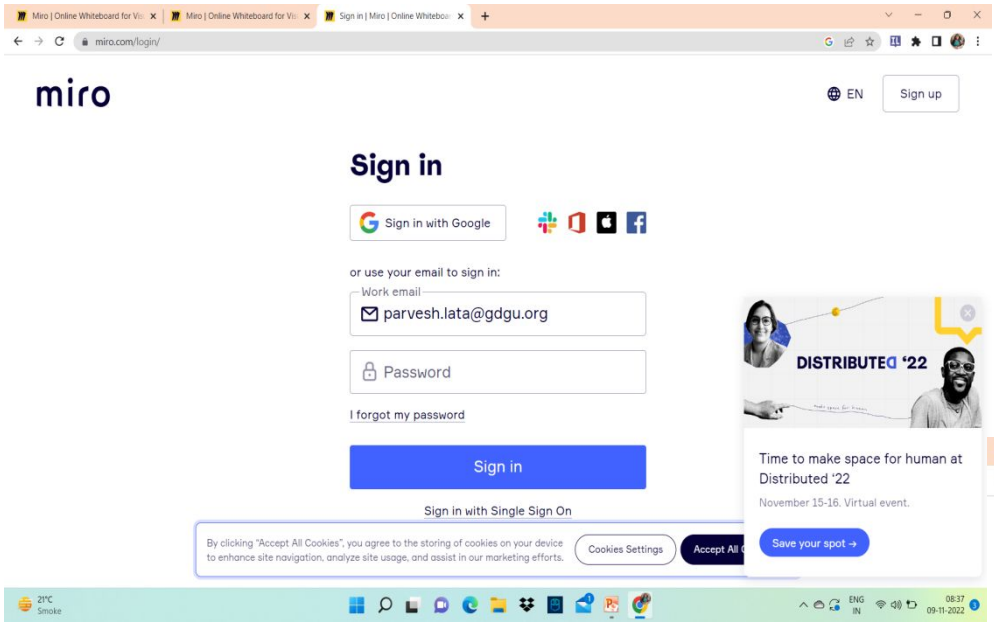
- Miro can be used as a part of video meeting tools like Hopin or Whereby where you can share your Miro board (like you would your screen) and participants can add to the Miro board without opening a new browser tab.

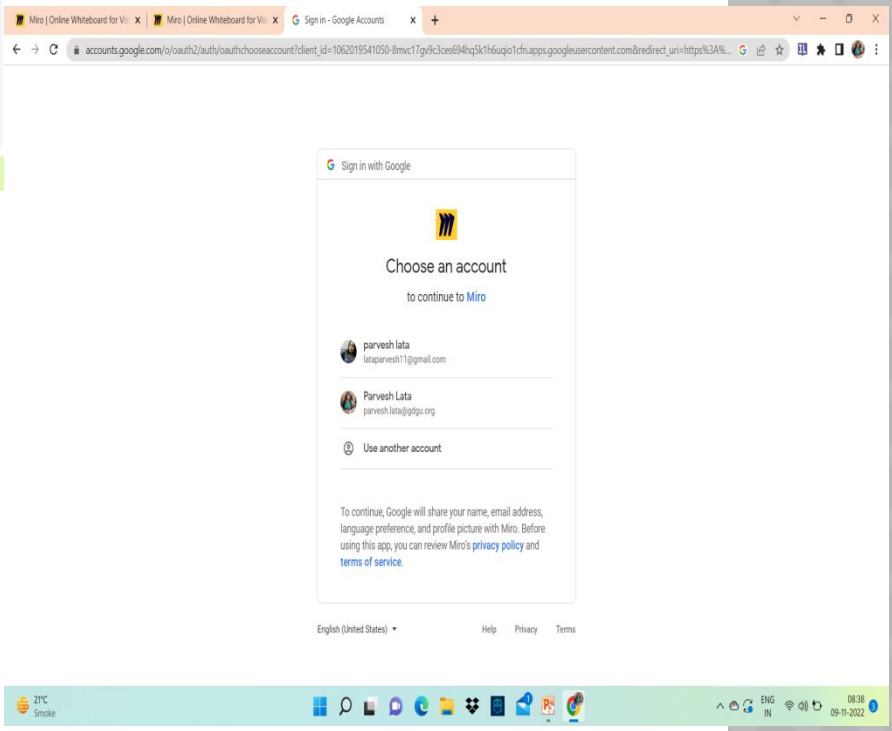
- Miro is one of the fastest growing software tools due to the major shift to remote work catalyzed by the COVID pandemic. It really can make your meetings or workshops more visual, collaborative, and engaging.

MIRO

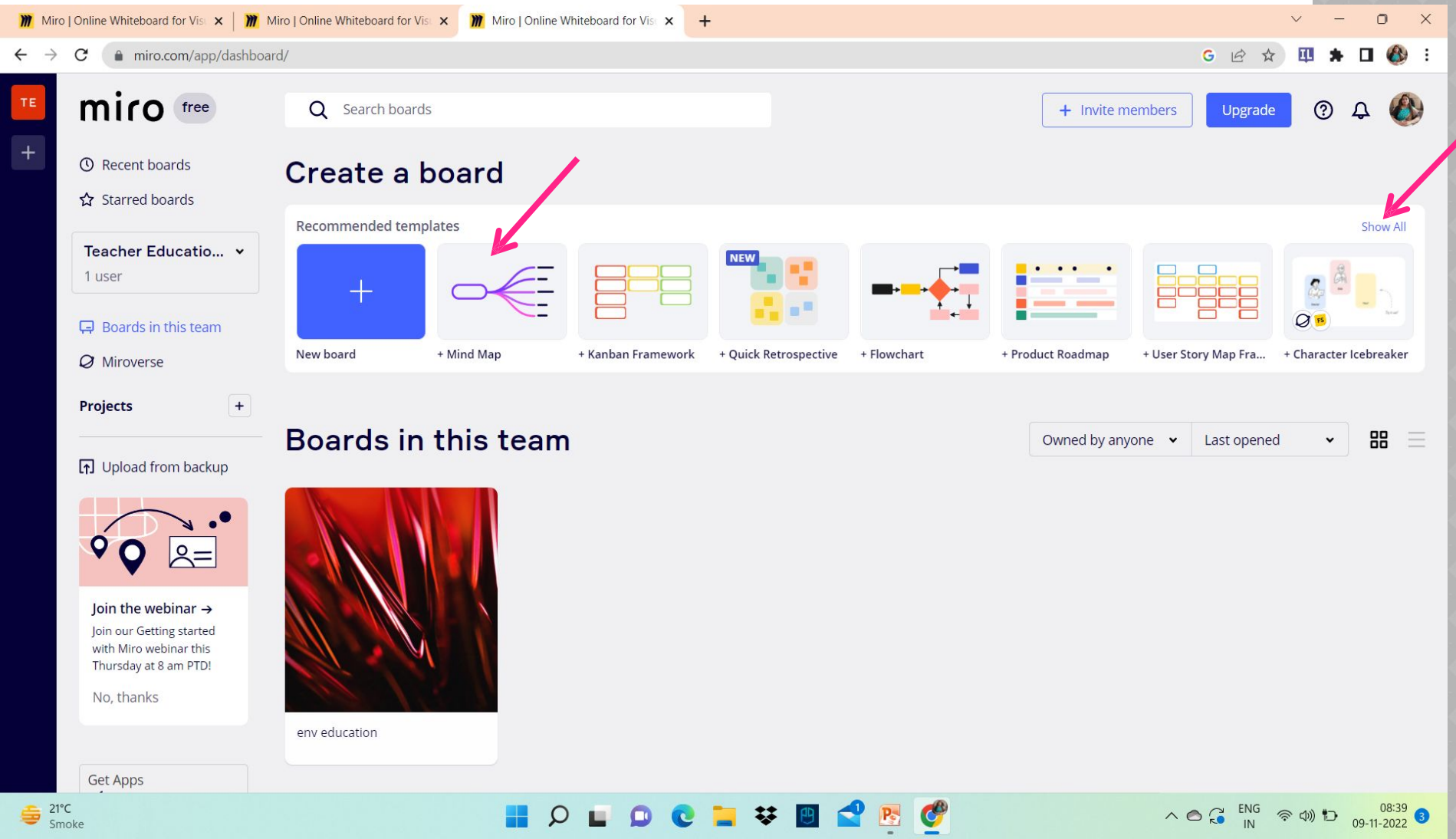
First of all, Login to MIRO web app at https://miro.com/login/. This will redirect you to your dashboard

- SIGN IN WITH GOOGLE AND CHOOSE ACCOUNT

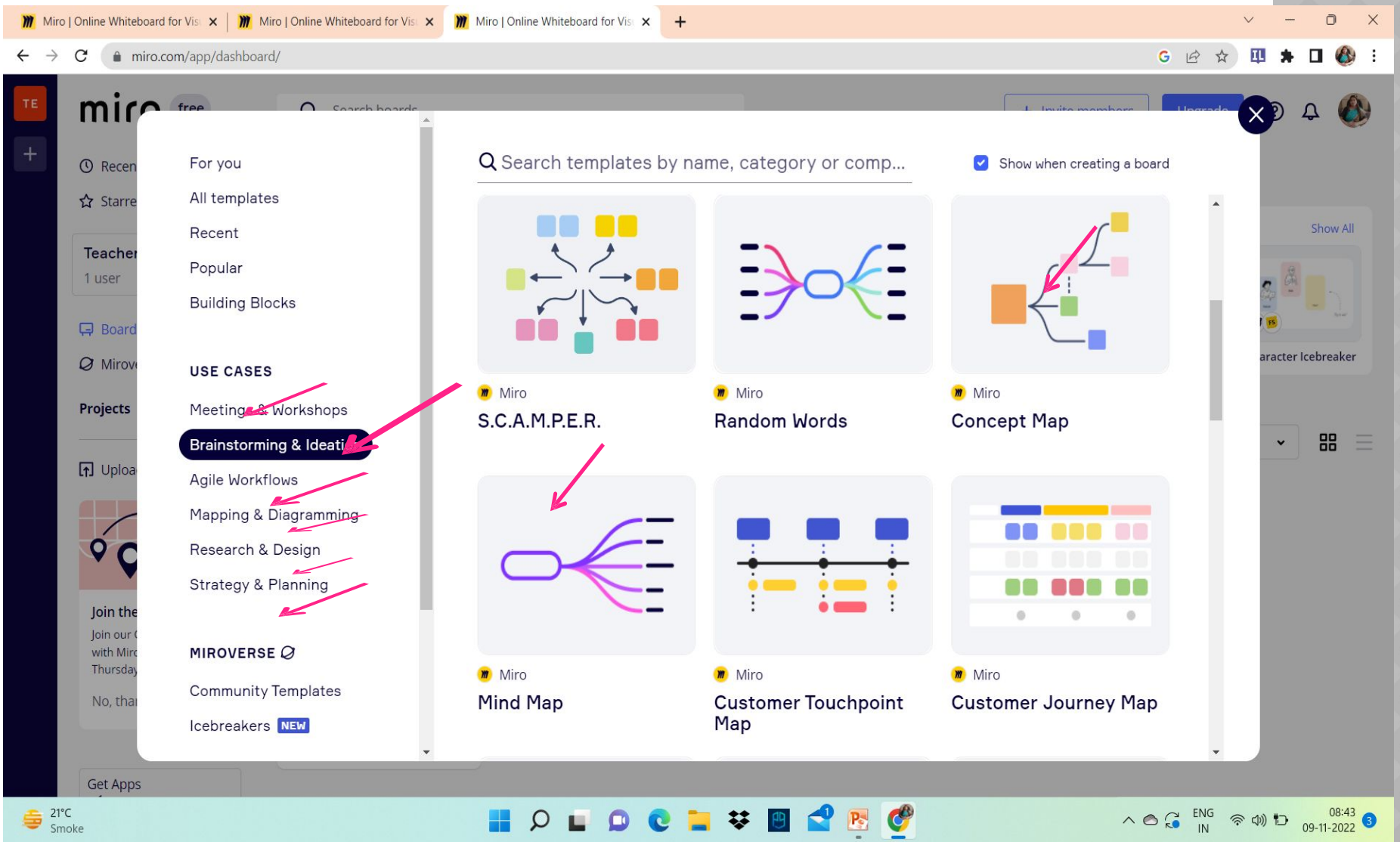




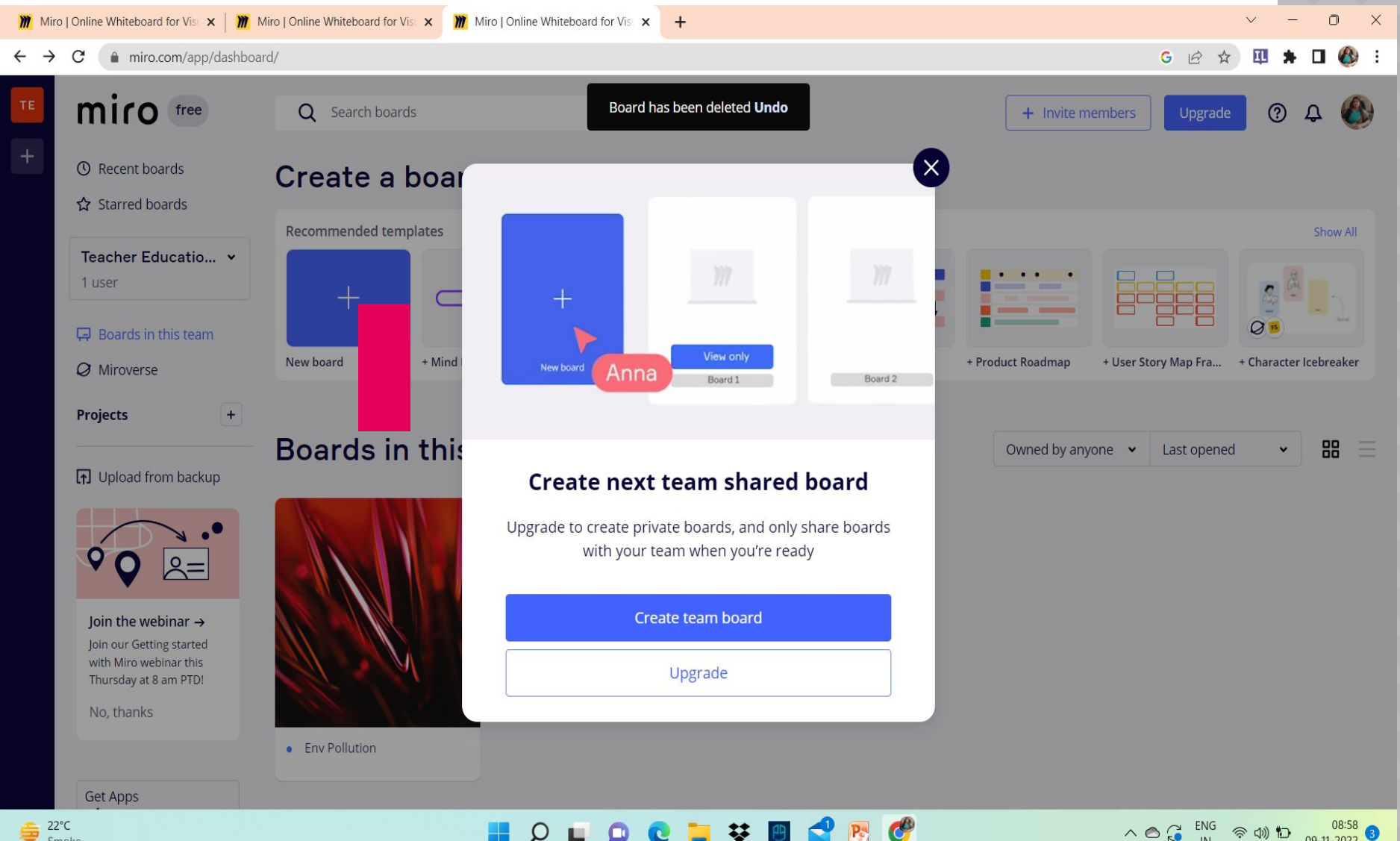
AFTER LOGIN THIS WINDOW OPENS



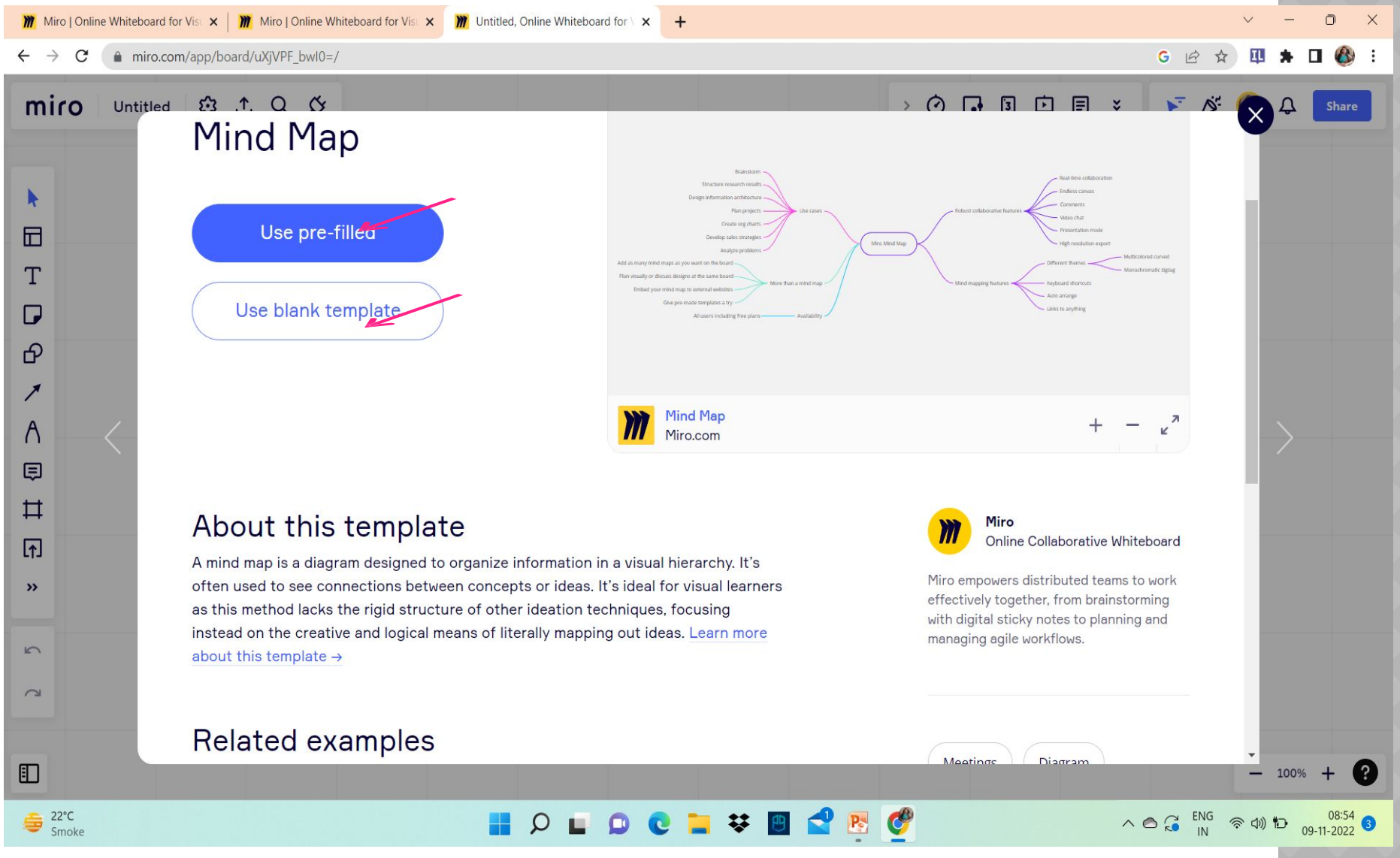
TEMPLATES OF MIRO APP



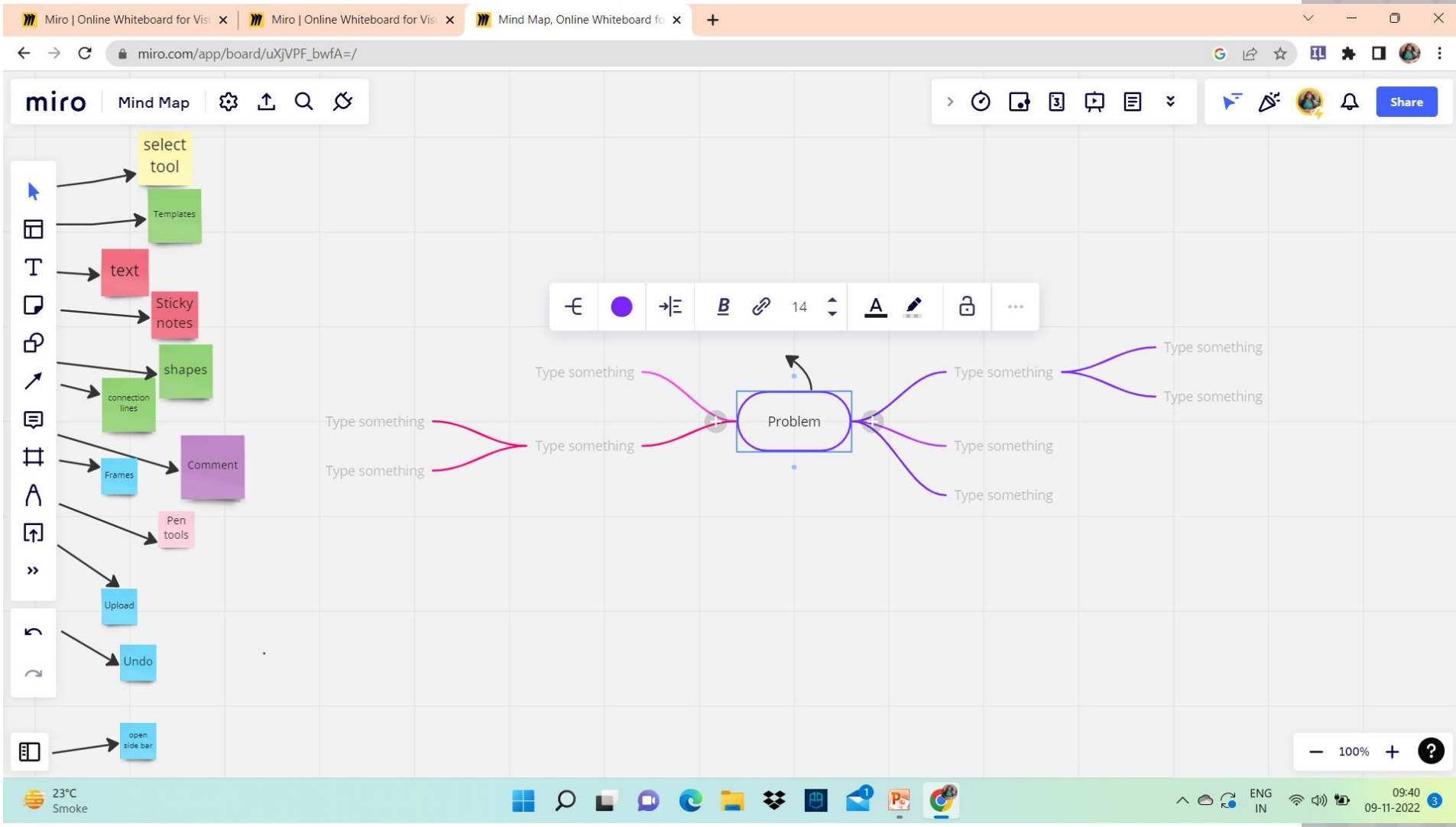
CLICK ON NEW MIND MAP FOR CREATING YOUR TEMPLATE AND CREATE TEAM BOARD



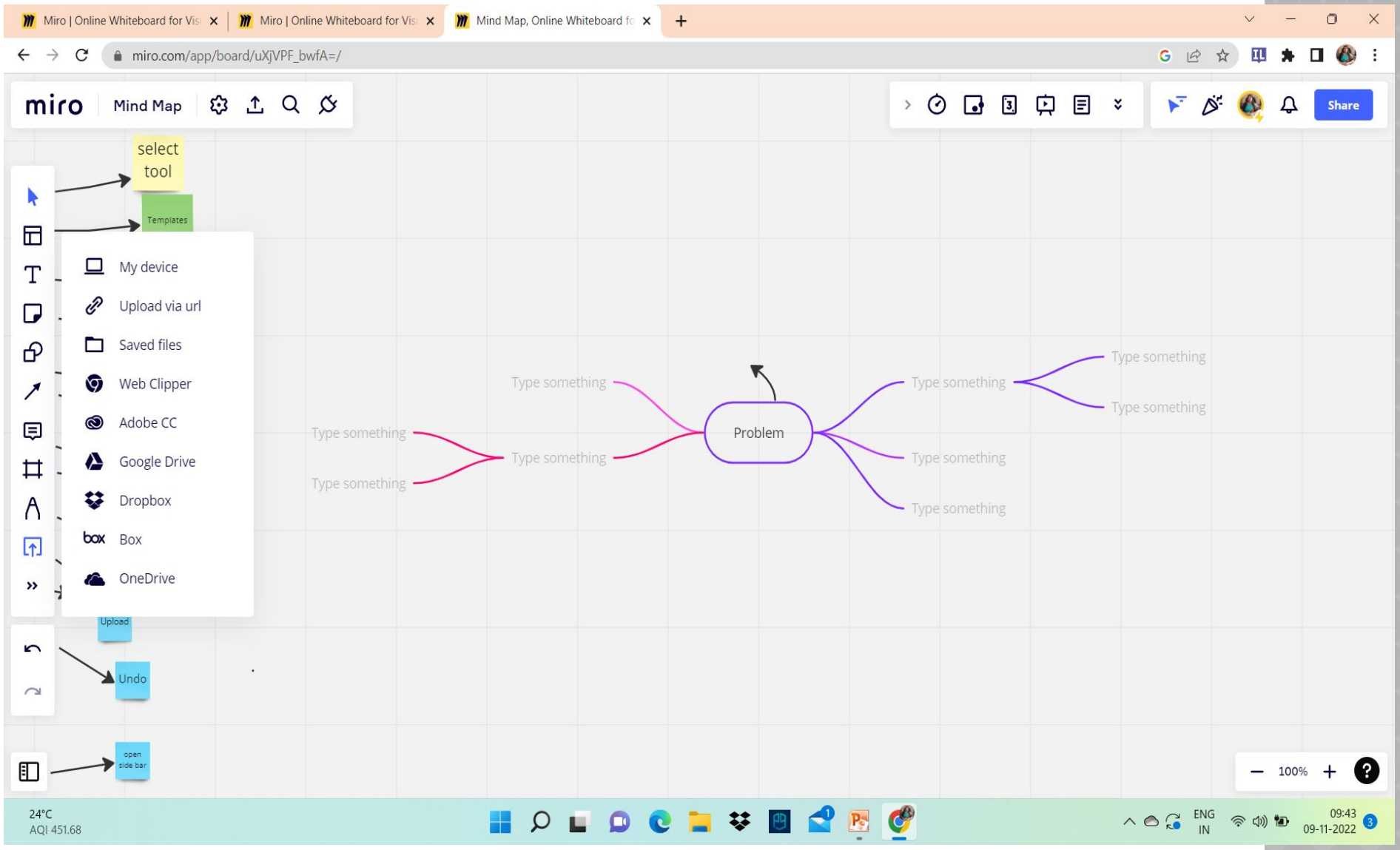
CREATE MIND MAP



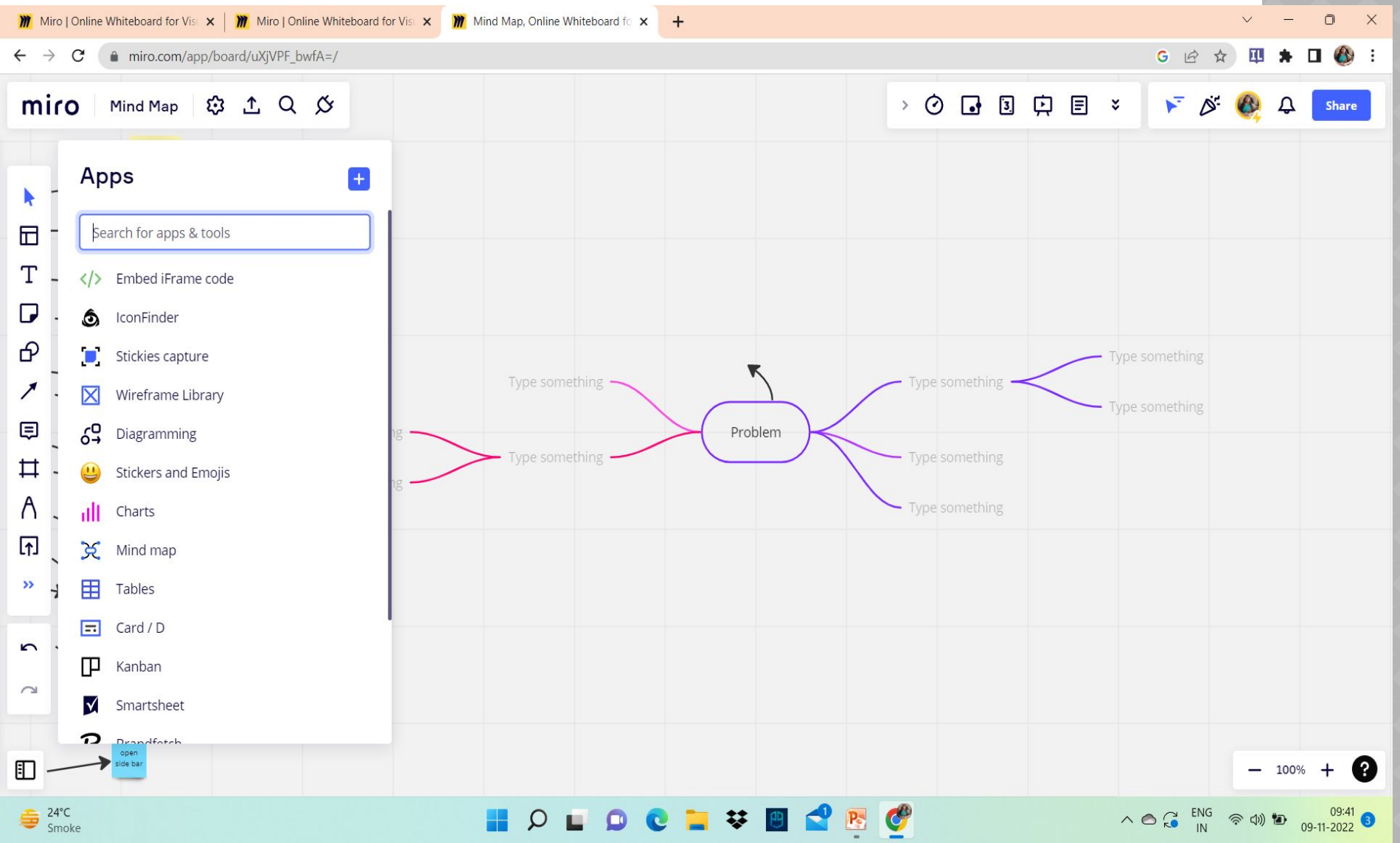
TASK FEATURES OF MIRO APP



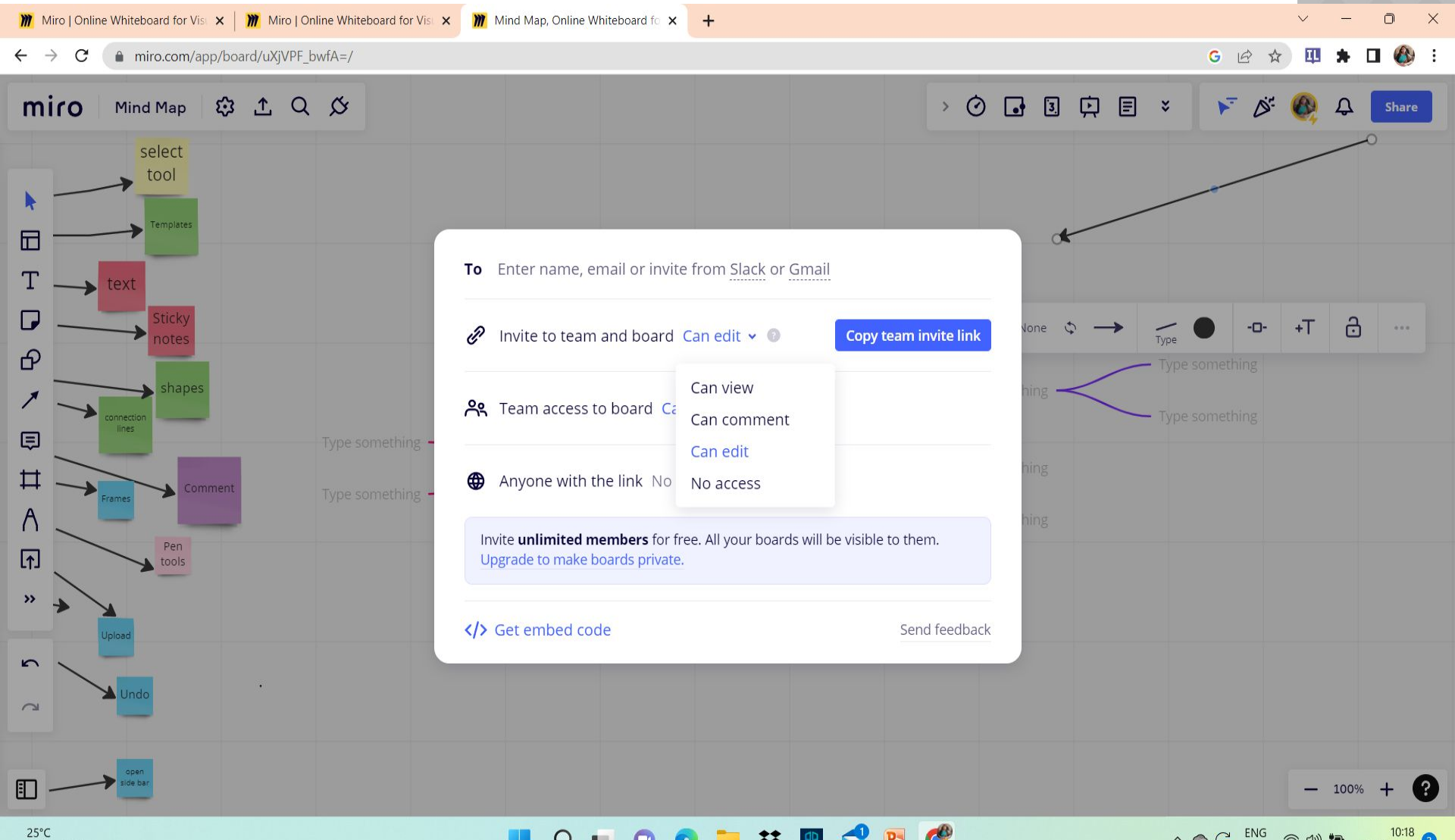
UPLOAD IN MIRO APP



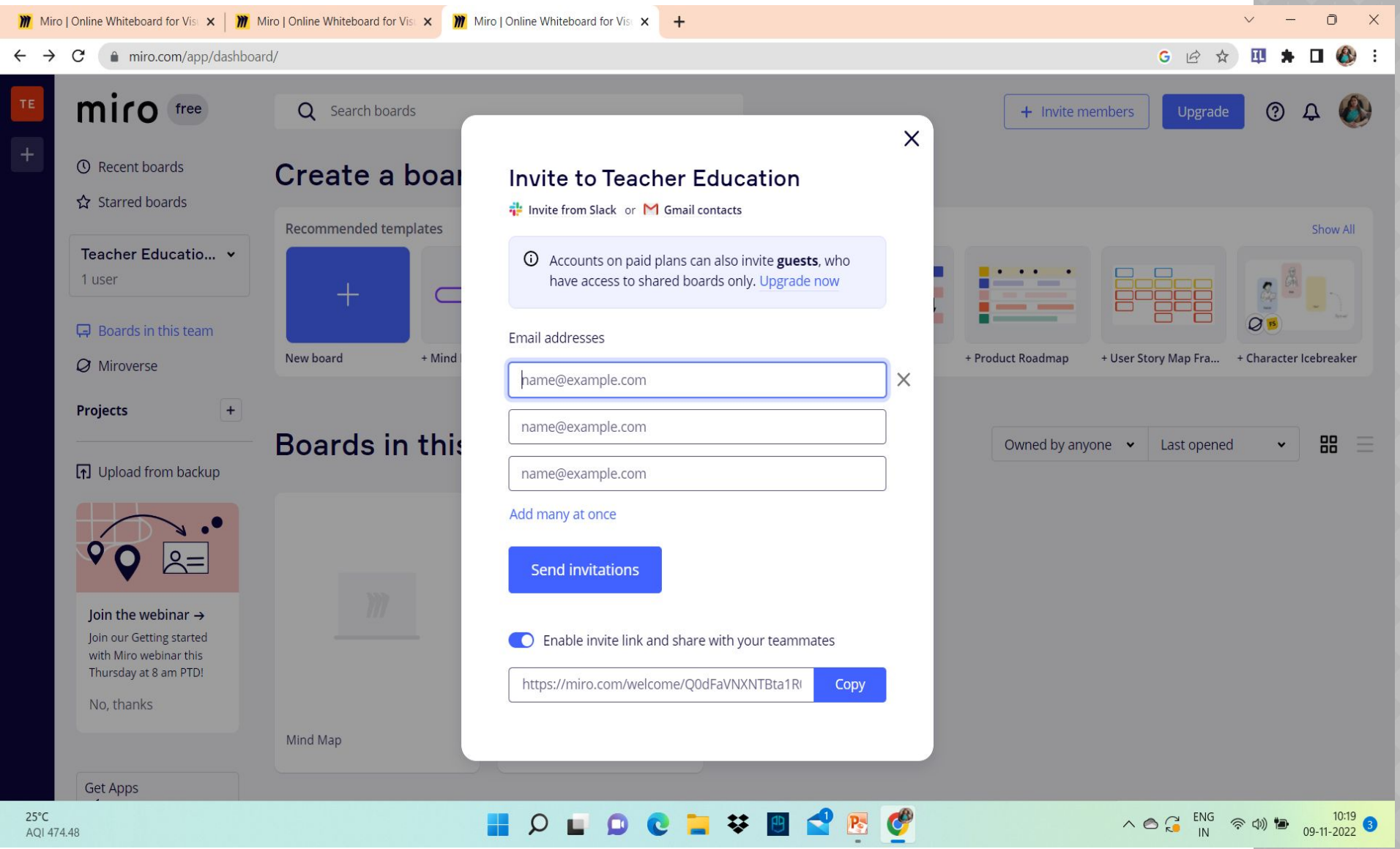
MORE TOOLS IN MIRO APP



SHARING IN MIRO APP



INVITE MEMBERS IN MIRO APP



CREATIVE TIPS FOR MAKING MAPS

- Review available visual materials such as photos, sketches, graphs, etc.
- Focus upon a visual language approach to communication.
- Consider possible formats for visual structuring.
- Relax, close your eyes and allow your mind to "free associate".
- Draw informal, thumbnail sketches of your visual impressions.
- Experiment with a variety of visual layout formats.
- Colour shapes, arrows or words for emphasis.
- Imagine a bird's eye overview of the subject matter to be presented.
- Look with fresh eyes, is the visual presentation attractive?
- Ask yourself, are these visuals compelling? Do they help convince the viewer that the subject matter is important and inviting?
- Integrate the visuals with the text. Does it work to the best advantage?
- Keep a record of the maps you do (Perhaps in your "Visual Notebook").

- The great thing about mind mapping is that one can put one's ideas down in any order, as soon as they pop into your head.
- You are not constrained by thinking in order. Simply, throw out any and all ideas, and then worry about reorganizing them later.
- The Mind Map is the external mirror of your own *radiant* or natural thinking facilitated by a powerful graphic process, which provides the universal key to unlock the dynamic potential of the brain.

- One simple way to understand a Mind Map is by comparing it to a map of a city.
- The city centre represents the main idea;
- the main roads leading from the centre represent the key thoughts in your thinking process;
- the secondary roads or branches represent your secondary thoughts, and so on.
- Special images or shapes can represent landmarks of interest or particularly relevant ideas

PRACTICE YOURSELF

THANK YOU